

## UNIT – III

### Botany (Biology in Human welfare)

- 1 Morphine is obtained from which plant ?
  - a) Caca
  - b) Cannabis
  - c) Poppy
  - d) Datua1
- 2 Semi dwarf variety of wheat that played a significant role in Green revolution was imported from which county ?
  - a) Russia
  - b) China
  - c) Germany
  - d) Mexico1
- 3 In plant breeding programmes, the most common method to generate genetic variation, conventionally is called-
  - a) Hybridization
  - b) Heat treatment
  - c) Somaclonal variation
  - d) Genetic recombination.1
- 4 Spirulina is a microbe that has been found to be a rich source of –
  - a) Carbohydrate
  - b) Protein
  - c) Fats
  - d) Vitamins1
- 5 Brown rust of wheat, Red rot of sugarcane and late blight of potato are caused by-
  - a) Bacteria
  - b) Fungi
  - c) Virus
  - d) Protozoa1
- 6 Which of the following is a Nitrogen fixing bacteria –
  - a) Salmonella
  - b) Lactobacillus
  - c) Rhizobium
  - d) E. Coli1
- 7 Which of the microbe is associated with the commercial production of ethanol/ethyl alcohol –
  - a) Bacillus
  - b) Yeast
  - c) Plasmodium
  - d) Blue green algae1
- 8 Symbiotic association of fungi with the roots of higher plants is known as-
  - a) Lichen
  - b) Moss
  - c) Anabaena
  - d) Mycorrhiza1
- 9 World's first Antibiotic penicillin was isolated from which group of microbes ?
  - a) Bacteria
  - b) Fungi
  - c) Protozoa
  - d) Virus1

- 10 Tobacco mosaic disease is caused by –  
a) Virus  
b) Bacteria  
c) Protozoa  
d) Insects 1
- 11 Which of the following drug is abused by some sportspersons  
a) Morphine  
b) LSD  
c) Belladonna  
d) Cannabinoids 1
- 12 Which of the following part/system of the body is affected by cocaine –  
a) Digestive System  
b) Excretory System  
c) Nervous System  
d) Respiratory System 1
- 13 Which of the following is used in paddy fields as bio-fertilizers –  
a) Bacteria  
b) Cyanobacteria  
c) Fungi  
d) Weeds 1
- 14 Which of the following Bt crops is grown in India by the farmers ?  
a) Maize  
b) Rice  
c) Soyabean  
d) Cotton 1
- 15 The capacity to generate a whole plant from any cell is called ;  
a) Somaclones  
b) Explant  
c) Totipotency  
d) Micropropagation 1
- 16 Which of the following food product is not obtained through fermentation  
a) Curd  
b) Butter  
c) Cheese  
d) Idli 1
- 17 Statins, isolated from the fungus monascus purpureus is commercially used for controlling  
a) Blood cholesterol  
b) Blood sugar  
c) Blood clotting  
d) Blood volume 1
- 18 The major component of Bio gas is –  
a) CO<sub>2</sub>  
b) N<sub>2</sub>  
c) CH<sub>4</sub>  
d) H<sub>2</sub> 1
- 19 High value of BOD (Biochemical Oxygen Demand) Shows –  
a) Water is normal  
b) Water is highly polluted  
c) Water is Less polluted  
d) Water is pure 1
- 20 Which of the following is formed during the secondary treatment of sewage.  
a) Primary sludge  
b) Mud  
c) Floes  
d) Biogas 1

21	Baculoviruses are considered beneficial for the plants as they :	
	a) Helps the plants to grow	
	b) Control the insect pest	1
	c) Make the soil fertile	
	d) Helps to increase yield	
1	Name any two plants and the drugs we obtain from them.	2
2	Describe two methods of breeding for disease resistance.	2
3	What is hallucination. Name a plant that yields drug. With hallucinogenic property.	2
4	What is SCP ? Give two examples.	2
5	What is Micropropagation ?	2
6	What is bio fortification ? Give example of two bio fortified crop released by IARI	2
7	How the somatic hybrids are formed ?	2
8	What is 'LAB' ? Why curd is considered better than Milk.	2
9	What is the cause of large holes in "Swiss-Cheese" ?	2
10	What is BOD ? How it is related to water pollution ?	2
11	What are the major constituents of Biogas ? Name the bacteria which produce biogas.	2
12	What do you mean by bio control ? Give an example of a popular microbial bio control agent.	2
13	What is organic farming ? How it differs from the traditional farming ?	2
14	What is Mycorrhiza ? How it is useful in nature ?	2
15	Name the source of following acids :	
	a) Citric Acid	2
	b) Acetic Acid	
1	How the primary treatment of sewage is different from the secondary treatment ?	3
2	What is fermentation ? Name two alcoholic beverages produced by this process. Which microbe is used for the production of alcoholic beverages.	3
3	Bottled fruit juices are clearer as compared to those, made at home, why? Which enzyme is used in detergents to remove oily stains ?	3
4	What is Clot-buster ? How it is obtained and mention its use.	3
5	What made green revolution possible in India ? Who is regarded as father of Green revolution.	3
6	Define tissue culture. What is the importance of meristem culture ?	3
7	Match the following :	
	<b>Crop</b>	<b>Resistant Variety</b>
	a) Wheat	- Pusa sadabahar
	b) Cauliflower	- Pusa Shubhra
	c) Chilli	- Himgiri

8	What are antibiotics ? Name two antibiotics, you have once used. Who discovered the first antibiotic ?	3
9	Who initiated Ganga & Yamuna Action plan ? What is the purpose behind these projects ?	3
10	What is plant breeding technique ? Mention 3 major purposes for which breeding is done ?	3
1	Draw a neatly labelled diagram of Biogas-plant.	3+2=5
2	What is plant-breeding. Describe its various steps.	5
3	What is 'sewage-treatment' ? How micro organisms are useful for the treatment of sewage ?	5
4	Describe the role of micro organisms with examples to enrich the fertility of soil.	5
5	Give juice examples, how micro organisms have played important role for the betterment of human life.	5